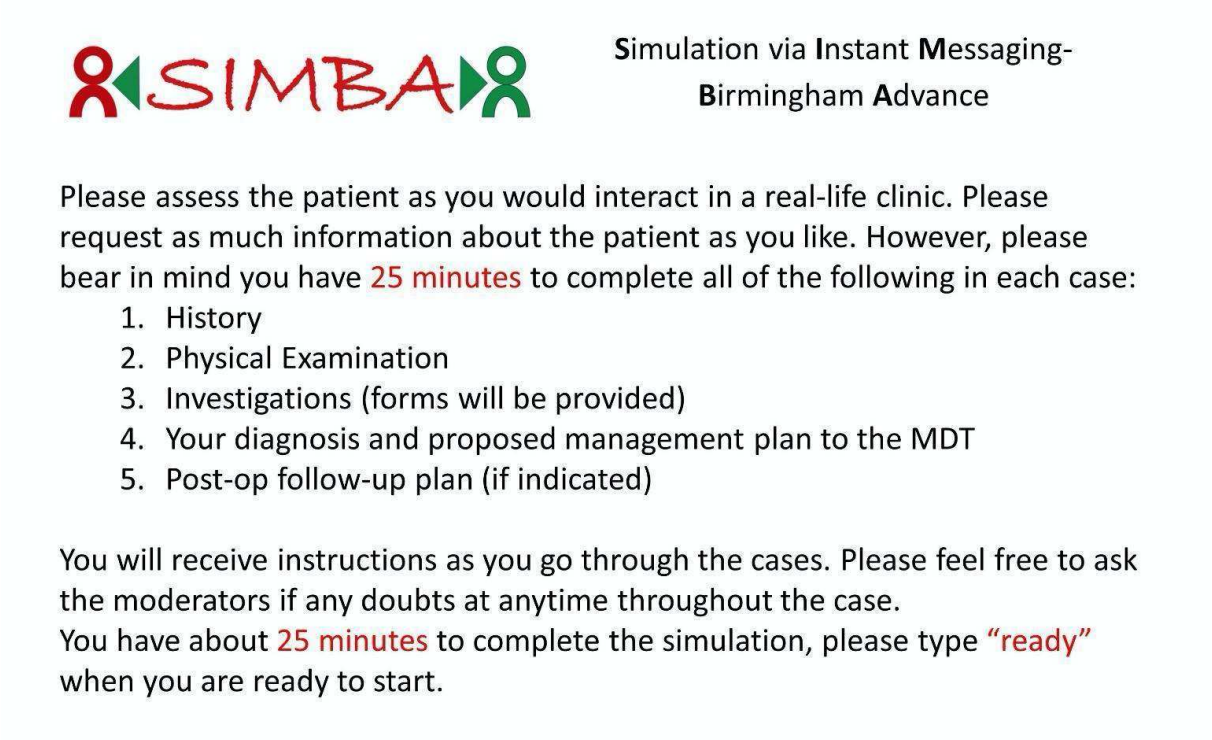
Case 4

Instruction to moderators: If information asked by participants is not available in the transcript, please copy the following

The information you requested is not available.

Please liaise with your senior moderator if any doubts at any point of the simulation

Instruction to moderators: once instructed to start case 4, copy this image and wait for participant's reply



Instruction to moderators After participants are ready, copy the presenting complaint below

Presenting complaint

A 58-year-old woman presents to your clinic with visual problems.

Please assess this patient in your clinic and request any information you will need in your assessment.

History of presenting complaint

For the past 8 months, I've noticed that my vision is getting worse. I'm finding it increasingly harder to focus at work and read on the computer and this has not helped with reading glasses. I've also been

IF NEEDED:

The information you requested is not available

having difficulty seeing cars approaching in the opposite direction. Alongside this, I've been having headaches which I think are related to eye strain and I've been feeling very tired. Over the past 4 months, I've gained four stone in weight.

Past medical history and surgical history

1. Asthma
2. Allergic rhinitis

Medications

1. Cetirizine
2. Salbutamol inhaler
3. Beclomethasone inhaler

Allergies

Animal dander, pollen. NKDA

Family history

None

Social history

I work in administration. I do not drink or smoke.

Instructions to moderators: After the participants have asked all the information above please copy the following:

You have now completed history taking. What examinations would you like to perform for this patient?

Examinations: Ensure to give **only** the requested section for examinations

Observations: Unremarkable

Systemic examination: Cardiovascular and respiratory examination was unremarkable.

Specialty specific examination: Right homonymous hemianopia field defect.

IF NEEDED:

The information you requested is not available

Instruction to moderators After the participants have asked all the information above please send them the blood form and copy the following.
Please follow the link provided, tick all the relevant investigations you need for the case, and *text the moderator after you have submitted the form.*
https://docs.google.com/forms/d/e/1FAIpQLSePS9P2VJg2SdR88EQPhOxtmCur_MayCmdzk_Y2mTjn2-rBdA/viewform?usp=sf_link

Results will be provided.

Instructions to moderators: send all the investigations as images from below **after you have confirmed that they submitted the investigations form**.

Blood tests		
Investigation	**Result**	**Reference Range**
IGF-1 (Insulin-like growth factor-1)	15.5	5.9-22.7 nm/L
FSH (Follicle-stimulating hormone)	10.5	25.8-134.8 IU/L
LH (Luteinising hormone)	1.8	7.7-58.5 IU/L
Prolactin	426	100-500 mU/L
TSH (Thyroid stimulating hormone)	1.07	0.40-4.90 mIU/L
FT4 (free thyroxine)	9.4	9.0-19.0 pmol/L

Instructions to moderators: If the participant asks for a **short Synacthen test**, please copy the following:

Short Synacthen test (SST)			
Offset	**Time**	**Cortisol**	**Cortisol reference range**
0 minutes	12.35	126	
30 minutes	13.05	535	Optimal response >450 nmol/L

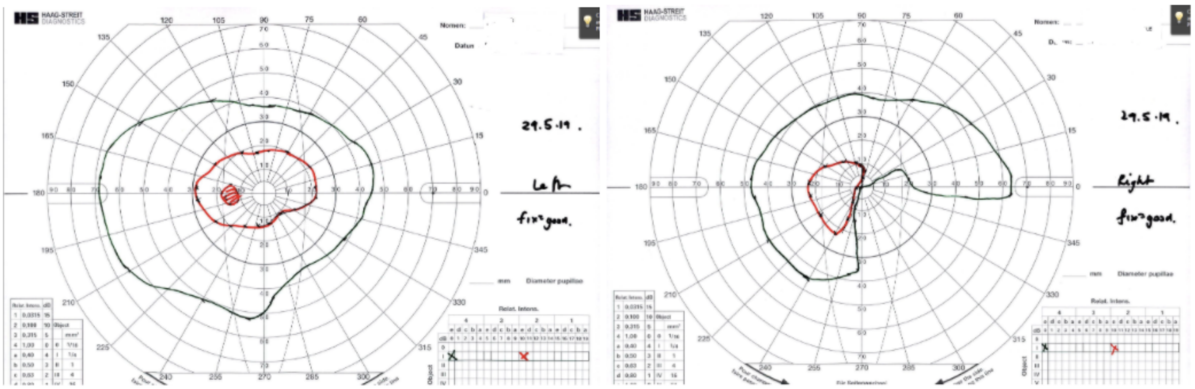
Instructions to moderators: If the participant asks for imaging, please send the following:
Pituitary MRI
A calcified suprasellar lesion in keeping with a diagnosis of craniopharyngioma. Solid and cystic components noted.
Optic chiasm compression is present and worse on the left side. There is a marginal distortion of the third ventricle noted on the right. No hydrocephalus.
The pituitary gland is uninvolved and is normal.

IF NEEDED:
The information you requested is not available

Instructions to moderators: If the participant asks for a **neuro-ophthalmology review**, please copy the following:

Neuro-ophthalmology review

- On examination, her visual acuity was right eye 6/9.5 and left eye 6/24.
- With pinhole, there was no improvement in the right eye and in the left eye acuity was 6/20.
- No relative afferent pupillary defect however pupil reactions were slow.
- Ishihara colour vision plates were right eye 12/13 and left eye 3/13.
- Dilated examination which showed slight pallor of the temporal neuroretinal rim in the left eye.
- Examination of ocular motility and cranial nerve V were unremarkable
- Visual field testing shows inferior right incongruous quadrantanopia with the right eye field defect being worse than the left.
- Optical coherence tomography of the retinal nerve was within normal limits
- The ganglion cell layer showed some mild thinning in the right eye versus the left.
- *Assessment: Pupils and colour vision may correspond to chiasmal compression and/or left optic nerve involvement. The visual field pattern is in keeping with left optic tract involvement.*



Instructions to moderators: After the participants have asked all the information above, please copy the following:

You have now gathered all the available information for this case.

Please reply to the following:

- state the diagnosis and its rationale
- propose management and follow-up plan

Instructions to moderators: After the participants have answered above please copy the following:

MDT outcome

This patient was diagnosed with a suprasellar/intraventricular lesion with a solid and cystic component in keeping with craniopharyngioma. The lesion was causing chiasmal compression and visual

IF NEEDED:

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compromise. Following the MDT discussion, this patient was referred to neurosurgery for a surgical resection via an endoscopic endonasal approach.

One month later
The patient underwent an expanded endonasal endoscopic resection of the suprasellar lesion which was later confirmed to be a WHO grade 1 adamantinomatous craniopharyngioma. Pituitary MRI was satisfactory and showed gross total resection of the craniopharyngioma. Five days later, repair of a cerebrospinal fluid (CSF) fistula was required using adipose tissue taken from the patient's right thigh. Since this repair, the patient has experienced no further CSF leaks and has been mobilising independently. The post-operative pituitary MRI has shown total debulking of the tumour which will be monitored with repeat pituitary MRI scans. The patient has also experienced a subjective improvement in vision will be reviewed regularly by ophthalmology.

6 weeks after surgery

Blood tests		
Investigation	**Result**	**Reference Range**
IGF-1 (Insulin-like growth factor-1)	13.3	5.9-22.7 nm/L
FSH (Follicle-stimulating hormone)	0.3	25.8-134.8 IU/L
LH (Luteinising hormone)	<0.1	7.7-58.5 IU/L
Prolactin	86	100-500 mU/L
TSH (Thyroid stimulating hormone)	0.66	0.40-4.90 mIU/L
FT4 (free thyroxine)	<5.4	9.0-19.0 pmol/L

Short Synacthen test (SST)			
Offset	**Time**	**Cortisol**	**Cortisol reference range**
0 minutes	14.15	<28	
30 minutes	14.45	76	Optimal response >450 nmol/L

Please interpret these results and state how you would proceed

Instructions to moderators: After the participants have answered above, please copy the following:
The results of these post-operative tests show secondary hypothyroidism and cortisol deficiency. This patient should continue taking Hydrocortisone (15 mg in the morning and 5 mg in the afternoon) which was prescribed post-operatively and should commence on Levothyroxine 50 mcg.

Four months later
This patient has returned to see you in the clinic for follow up. They have been unwell with depression, weight gain of nearly 15 kg, joint pains and nocturia. They now use a stick to mobilise.

How would you proceed?

IF NEEDED:
The information you requested is not available

Instructions to moderators: After the participants have answered above, please copy the following:

This patient's symptoms are likely to be due to hypothalamic dysfunction which is common in patients with craniopharyngioma, however, since some symptoms could be due to pituitary dysfunction tests were repeated including, thyroid function tests, electrolytes, glucose and urine and serum osmolalities.

Her electrolytes, glucose and osmolalities were all satisfactory, however, thyroid function tests show her thyroid hormone replacement is still not optimal free thyroxine (6.5 pmol/L).

This would explain a number of the patient's complaints including depression, tiredness, weight gain. Her levothyroxine dose was increased to 100 mcg daily with further monitoring of free thyroxine arranged.

Instructions to moderators: Please send as a separate message right after the previous text

The simulation has ended. Many thanks and we will discuss the case shortly

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